

REMARKS:

Claims 12-22 are in the case and presented for consideration.

Claim 5 was indicated by the examiner as being allowable if rewritten in independent form. The examiner is respectfully thanked for the indication.

However, new claims 12-22 are presented instead which correspond generally to claims 1-11. The independent claims 12 and 22 recite the invention differently and include an additional element not found in the prior claims. Claims 12-22 are believed to be allowable over the prior art of record and the references being submitted herewith in an Information Disclosure Statement.

Claims 2-4 and 9 were rejected pursuant to 35 U.S.C. §112 for the use of the phrase "one or more" to modify the information providing servers. The rejection is overcome by the phrasing used in new claims 12-22. The new claims use the phrase "at least one" to modify the "information providing server" element instead.

Original independent claim 1 was rejected pursuant to 35 U.S.C. §102(e) as anticipated by each of U.S. Patents 6,157,648 to Voit et al., 6,349,096 to Liu et al. and 5,956,391 to Melen et al. Independent claim 11 had been rejected as anticipated only by Melen '391.

New claims 12 and 22 are the independent claims now in the case. Applicant submits that these claims, and dependent claims 13-21, are each novel and non-obvious from the references cited by the examiner, and, as well, those identified in the IDS submitted herewith.

The purpose of the present invention is to provide a subscriber line connected with an LAN that is in turn associated with a subscriber switching system or subscriber switching exchange, and which has at least one information providing server connected therewith. It should be observed that there is no switching system between the subscriber line and the LAN. In this configuration, the LAN and the subscriber line function as an information transmission media for a community network. In practice, each subscriber switching system or local station typically covers a subscriber area of several miles. Thus, the server associated with each switching system can provide people of the corresponding community with information (preferably related to the community), independently of other switching system areas.

The subject invention is intended to provide a community network for people living or working within a local station service area by means of subscriber lines and a LAN associated with a subscriber switching system or local station.

Basically, the information transmitted from the server only reaches the subscribers located in the corresponding subscriber switching system. Therefore, selective transmission of community-oriented information to the people who live or work in a limited service area of a concerned local station is easily achieved.

Furthermore, broadcast frames transmitted from the server reach every subscriber device connected to the LAN. Therefore, the invention also makes it possible to broadcast program services like TV or radio program services, which cover only a limited area, or the local station service area.

As recited in claim 12, a communications system of the invention has:

a LAN associated with the subscriber switching system;

branching means having a common terminal, a first branching terminal and a second branching terminal, the common terminal being connected with a subscriber line at a side of the subscriber switching system, the first branching terminal being connected with the subscriber switching system, and the second branching terminal being connected with the LAN; and,

at least one information providing server

connected to and associated with the LAN, for providing
a subscriber device with information through the LAN
and the subscriber line.

The underlined portions of the claim identify new limitations and elements or features which were present in original claim 1, but are set forth with additional detail regarding their connections. New independent claim 22 includes the same limitations of claim 12 in combination with a mobile switching system. The underlined limitations at least are believed to distinguish the invention from the cited references.

For example, Voit '648 seeks to provide telephony communications by means of plural autonomous system type packet data networks, for example, the Internet, using gateways and a directory server. In Fig. 3, referenced by the Examiner, Voit '648 only discloses a configuration of the Internet wherein laptop computers 340, 342 connect to the Internet via dial up links 344, 346. In this figure, switching systems or switching exchanges are not shown. However, in system like that of Voit '648, switching systems are used in a conventional manner. That is, the laptop computers are connected through the switching systems to the autonomous system type packet data networks, for example, internet service providers using PPP protocol or SLIP protocol.

Voit '648 never discloses or suggests the above mentioned configuration or operation of the subject invention: a LAN associated with a switching system and provided with at least one information providing server. The arrangement of components and communications described in Voit '648 is different from the applicant's invention.

Liu '096 discloses a system that can be dynamically configured to achieve an optimal routing path for an end-to-end data link connection. In particular, Fig. 3 shows a digital subscriber line access and multiplexer which provides dynamic selection among a public switching telephone network, digital cross connects, and a wide area network (WAN). Liu '096 never discloses or suggests a LAN associated with a switching system and provided with at least one information providing server either.

Melen '391 only discloses a bill charging system using Intelligent Network 14 together with Signaling System 7 and INAP. In Melen '391, in particular as shown in Fig. 2, user terminals 1, 2 connect the local area network of an Internet service provider for enjoying Internet services through a switching exchange 4 with SLIP or PPP protocol. The information in the connection between the user terminals and the Internet service provider is managed by the Intelligent Network 14 using SS7/INAP. The information is received at the switching exchange having a service switching point

function and transferred to the Intelligent Network 14, which in turn generates and records bill charging information. Note that the local area network of the Internet service provider can be connected to any switching exchange and it is never associated any particular switching exchange.

Thus, Melen '391 never teaches or suggests providing a LAN associated with a switching system and having at least one information providing server either.

In addition to the references cited by the examiner in the action, applicant notes that the invention is different from references cited during examination with European Patent Office.

The article, "CONVERGENCE BETWEEN PUBLIC SWITCHING AND THE INTERNET" (XP000720563), discloses a central office or local switch station having IPOP (Internet Point of Presence, Internet access point) for connection to the Internet. The main tasks of the IPOP are to terminate the modem protocol of an analog subscriber and to perform user authentication and IP edge routing (page 553, left column, paragraph 4).

As shown in Figure 2.3 of the reference, the subscriber device is connected via an ADSL/SDSL modem to IPOP, which is in turn connected through SDH/FDH transport network to an internet service provider or connected to a Teleco ISP's Intranet. The Teleco ISP's Intranet is connected to the Public Internet. The IPOP does not

achieve a community network but, rather, simply facilities connection to Internet.

Please note that the IPOP in each central office is connected to the Telco ISP's Intranet and makes a global network, and then a server in any central office can be reached by any subscriber device connected to any other central office. The IPOP in each central office does NOT constitute a community network.

The EPO examiner points out "proxy server" in page 555, left column, first paragraph and states that "proxy server" implicitly comprises HTTP, SMTP, POP server functions. However, that context does not mean that any proxy server is provided in the IPOP, but that the IPOP in the central office works like a "proxy server." That is, the IPOP in the central office is recommended to have a access node to other Internet service providers or content service providers.

Regardless, the reference does not suggest or teach an LAN provided as associated a switching system and provided with one or more information providing server either.

Another of the references cited by EPO, "INTERNET THRUWAY: A PROFITABLE NEW ROUT FOR DATA TRAFFIC" (XP002073917) discloses a mechanism for Internet/public telephony services, and in particular, discloses matching a dialed number against ISP numbers to route Internet traffic to the public through the data network.

But, this reference also does not suggest or teach an LAN provided as associated a switching system and provided with at least one information providing server.

The last article cited by the EPO and the two Japanese patents are also distinguishable from the invention. The Japanese references, for example, only disclose a conventional LAN having an information providing server connected or a different type of community information providing service.


In summary, applicant submits that none of the available references teaches the subject invention as now claimed to achieve a community network through the use of subscriber lines and the LAN connected with the subscriber lines. These references cannot be logically combined to make the present claimed invention obvious either.

Accordingly, the application and claims are believed to be in condition for allowance, and favorable action is respectfully requested. No new matter has been added.

If any issues remain which may be resolved by telephonic communication, the Examiner is respectfully invited to contact the undersigned at the number below, if such will advance the application to allowance.

Favorable action is respectfully requested.

Respectfully submitted,



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